

Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1978

[Full Table of Content](#)



78/R/PE/1 and 78/W/PE/1 Control of Pathogens - Peas

Rothamsted Research

Rothamsted Research (1979) *78/R/PE/1 and 78/W/PE/1 Control of Pathogens - Peas* ; Yields Of The Field Experiments 1978, pp 423 - 427 - DOI: <https://doi.org/10.23637/ERADOC-1-30>

78/R/PE/1 and 78/W/PE/1

PEAS

CONTROL OF PATHOGENS

Object: To study the effects of a range of pesticides on the incidence of pathogens and on the yield of leafless peas - Rothamsted (R), Long Hoos V 2 and Woburn (W) Gt. Hill Bottom I.

Sponsors: A.J. Cockbain, K.E. Fletcher, J. McEwen, G.A. Salt, C. Wall, A.G. Whitehead.

Design: 3 blocks of 2 x 2 x 2. Randomisation restricted.

Whole plot dimensions: 4.19 x 5.49.

Treatments: All combinations of:-

1. NEMACIDE Nematicide:
 NONE None
 ALDICARB Aldicarb at 10 kg to the seedbed
2. INSECTICIDE Insecticide:
 NONE None
 TRIAZOPH Triazophos at 0.34 l in 680 l
3. FUNGICIDE Fungicide:
 NONE None
 BEN+ZIN Benomyl at 0.56 + zineb at 1.6 kg in 340 l

Basal applications:

Long Hoos V 2 (R): Manures: (0:14:28) at 720 kg. Weedkillers: Trietazine plus simazine ('Rental' at 2.2 kg in 340 l). Desiccant: Diquat at 0.78 kg ion in 340 l.

Great Hill Bottom I (W): Manures: (0:14:28) at 340 kg. Weedkillers: Trietazine plus simazine ('Rental' at 1.7 kg in 340 l).

Seed: Filby, sown at 220 kg, on both sites.

Cultivations, etc.:-

Long Hoos V 2 (R): PK applied: 3 Oct, 1977. Ploughed: 10 Oct. Spring-tine cultivated: 13 Mar, 1978. Aldicarb applied, power harrowed, seed sown: 6 Apr. Weedkiller applied: 24 Apr. Insecticide and fungicide treatments applied: 12 July. Haulm desiccant applied: 5 Sept. Combine harvested: 13 Sept. Previous crops: Oats 1976, spring wheat 1977.

Great Hill Bottom I (W): Spring-tine cultivated twice: 13 Mar, 1978, 15 Mar. PK applied, spring-tine cultivated with crumbler attached, aldicarb applied, spring-tine cultivated with crumbler attached, seed sown: 5 Apr. Weedkiller applied: 19 Apr. Insecticide and fungicide treatments applied: 13 July. Combine harvested: 11 Sept. Previous crops: Wheat 1976, barley 1977.

NOTE: Pea moth was monitored throughout the season at both sites and pea moth damage was assessed. Observations were made on diseases and pests throughout the season.

78/R/PE/1

GRAIN TONNES/HECTARE

***** TABLES OF MEANS *****

INSCTCDE	NONE	TRIAZOPH	MEAN	
NEMACIDE				
NONE	4.87	4.77	4.82	
ALDICARB	5.20	5.10	5.15	
MEAN	5.04	4.93	4.98	
FUNGCIDE	NONE	BEN+ZIN	MEAN	
NEMACIDE				
NONE	4.77	4.88	4.82	
ALDICARB	5.08	5.21	5.15	
MEAN	4.92	5.05	4.98	
FUNGCIDE	NONE	BEN+ZIN	MEAN	
INSCTCDE				
NONE	4.96	5.12	5.04	
TRIAZOPH	4.89	4.97	4.93	
MEAN	4.92	5.05	4.98	
INSCTCDE	NONE	TRIAZOPH		
FUNGCIDE	NONE	BEN+ZIN	NONE	BEN+ZIN
NEMACIDE				
NONE	4.81	4.94	4.72	4.82
ALDICARB	5.10	5.30	5.06	5.13

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	NEMACIDE	INSCTCDE	FUNGCIDE	NEMACIDE INSCTCDE
SED	0.072	0.072	0.072	0.101
TABLE	NEMACIDE FUNGCIDE	INSCTCDE FUNGCIDE	NEMACIDE INSCTCDE FUNGCIDE	
SED	0.101	0.101	0.143	

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP	14	0.176	3.5
GRAIN MEAN DM%	83.4		

78/R/PE/1

STRAW TONNES/HECTARE

***** TABLES OF MEANS *****

INSCTCDE	NONE	TRIAZOPH	MEAN	
NEMACIDE				
NONE	3.38	3.48	3.43	
ALDICARB	3.94	3.50	3.72	
MEAN	3.66	3.49	3.57	
FUNGCIDE	NONE	BEN+ZIN	MEAN	
NEMACIDE				
NONE	3.49	3.37	3.43	
ALDICARB	3.45	3.98	3.72	
MEAN	3.47	3.68	3.57	
FUNGCIDE	NONE	BEN+ZIN	MEAN	
INSCTCDE				
NONE	3.55	3.77	3.66	
TRIAZOPH	3.40	3.59	3.49	
MEAN	3.47	3.68	3.57	
INSCTCDE	NONE	TRIAZOPH		
FUNGCIDE	NONE	BEN+ZIN	NONE	BEN+ZIN
NEMACIDE				
NONE	3.39	3.37	3.59	3.37
ALDICARB	3.71	4.16	3.20	3.80

STRAW MEAN DM% 78.4

PLOT AREA HARVESTED 0.00095

78/W/PE/1

GRAIN TONNES/HECTARE

***** TABLES OF MEANS *****

INSCTCDE	NONE	TRIAZOPH	MEAN
NEMACIDE			
NONE	3.37	3.14	3.25
ALDICARB	4.13	3.93	4.03
MEAN	3.75	3.53	3.64
FUNGCIDE	NONE	BEN+ZIN	MEAN
NEMACIDE			
NONE	3.25	3.25	3.25
ALDICARB	3.81	4.24	4.03
MEAN	3.53	3.75	3.64
FUNGCIDE	NONE	BEN+ZIN	MEAN
INSCTCDE			
NONE	3.79	3.71	3.75
TRIAZOPH	3.28	3.79	3.53
MEAN	3.53	3.75	3.64
INSCTCDE	NONE	TRIAZOPH	
FUNGCIDE	NONE	BEN+ZIN	NONE BEN+ZIN
NEMACIDE			
NONE	3.45	3.29	3.06 3.21
ALDICARB	4.13	4.13	3.50 4.36

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	NEMACIDE	INSCTCDE	FUNGCIDE	NEMACIDE INSCTCDE
SED	0.226	0.226	0.226	0.319
TABLE	NEMACIDE FUNGCIDE	INSCTCDE FUNGCIDE	NEMACIDE INSCTCDE FUNGCIDE	
SED	0.319	0.319	0.452	

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP	14	0.553	15.2
GRAIN MEAN DM%	80.5		

78/W/PE/1

STRAW TONNES/HECTARE

***** TABLES OF MEANS *****

INSCTCDE	NONE	TRIAZOPH	MEAN
NEMACIDE			
NONE	3.13	3.07	3.10
ALDICARB	3.43	3.48	3.46
MEAN	3.28	3.28	3.28

FUNGCIDE	NONE	BEN+ZIN	MEAN
NEMACIDE			
NONE	3.25	2.95	3.10
ALDICARB	3.41	3.50	3.46
MEAN	3.33	3.23	3.28

FUNGCIDE	NONE	BEN+ZIN	MEAN
INSCTCDE			
NONE	3.43	3.14	3.28
TRIAZOPH	3.24	3.32	3.28
MEAN	3.33	3.23	3.28

INSCTCDE	NONE	TRIAZOPH		
FUNGCIDE	NONE	BEN+ZIN	NONE	BEN+ZIN
NEMACIDE				
NONE	3.46	2.81	3.05	3.10
ALDICARB	3.40	3.47	3.43	3.53

STRAW MEAN DM% 76.3

PLOT AREA HARVESTED 0.00255